

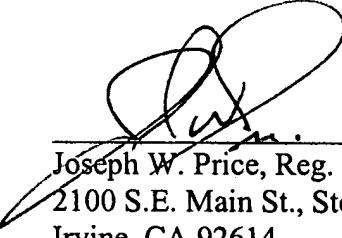
REMARKS

The amendments to the claims and newly drafted Claims 27-50 are in accordance with a Rule 34 Amendment submitted during the prosecution of the International Application. They are within the scope of the original invention and do not add any new subject matter.

If the Examiner believes that a telephone interview will help further the prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.

Very truly yours,

PRICE AND GESS



Joseph W. Price, Reg. 251,24
2100 S.E. Main St., Ste. 250
Irvine, CA 92614
949/261-8433

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 5, line 18, has been amended as follows:

--The object of the present invention is to greatly improve PDPs in luminance and luminous efficiency, compared to conventional alternating current type surface-discharge PDPs.--

The paragraph page 5, line 21, has been replaced by the following paragraph:

--To achieve the object, the dielectric layer is made by laminating at least two different dielectric materials, and the panel structure is set such that an electric field with an equivalent field strength of at least 37V/cm • KPa is generated in a discharge space, when a discharge sustaining voltage is applied between pairs of display electrodes in order to selectively glow-discharge in discharge spaces in which the electric charge has been accumulated on the dielectric layer.--

The paragraph beginning on page 6, line 4, has been amended as follows:

--Note that, in this alternating current type surface-discharge PDP, field strength differs from area to area in a discharge space. What is meant here is that at least 37V/cm • KPa must be satisfied in the area of the largest field strength in a discharge space.--

IN THE CLAIMS:

Claims 8, 16, 18, 19, 20, 21, 22, 23, 24, and 25 have been cancelled.

The claims have been amended as follows:

1 1. (Amended) [A] An alternating current type surface-discharge plasma display
2 panel comprising a facing pair of substrates and a plurality of ribs interposed between the
3 substrates so as to form a plurality of spaces,

4 the plurality of spaces being provided with a phosphor layer and filled with discharge
5 gas, so as to form a plurality of discharge spaces;

6 inside each of the discharge spaces, plural pairs of display electrodes covered by a
7 dielectric layer being provided,

8 the plasma display panel performing displaying by the following steps: 1) writing by an
9 accumulation of electric charge in the dielectric layer, 2) applying a predetermined sustaining
10 voltage between the pairs of display electrodes, 3) glow-discharging in selected discharge spaces
11 in which the electric charge has been accumulated in the dielectric layer, and 4) converting
12 ultraviolet light resulting from the glow-discharge into visible light by means of the phosphor
13 layer,

14 wherein the dielectric layer is made by laminating at least two different dielectric
15 materials.

16 and wherein a panel structure is set such that an equivalent electric field strength of
17 37V/cm • Pa or more is generated in the selected discharge spaces, when the predetermined
18 sustaining voltage is applied.

1 3. (Amended) [A] An alternating current type surface-discharge plasma display
2 panel comprising a facing pair of substrates and a plurality of ribs interposed between the
3 substrates so as to form a plurality of spaces,

4 the plurality of spaces being provided with a phosphor layer and filled with discharge
5 gas, so as to form a plurality of discharge spaces,

6 inside each of the discharge spaces, plural pairs of display electrodes covered by a
7 dielectric layer being provided,

8 the plasma display panel performing displaying by the following steps: 1) writing by an
9 accumulation of electric charge in the dielectric layer, 2) applying a predetermined sustaining
10 voltage between the pairs of display electrodes, 3) glow-discharging in selected discharge spaces
11 in which the electric charge has been accumulated in the dielectric layer, and 4) converting
12 ultraviolet light resulting from the glow-discharge into visible light by means of the phosphor
13 layer,

14 wherein an amount of xenon contained in the discharge gas and filling pressure of the
15 discharge gas, a gap between the display electrodes, and a thickness and a permittivity of the
16 dielectric layer are set so that an equivalent electric field strength of 37V/cm • Pa or more is
17 generated in the selected discharge spaces, when the predetermined sustaining voltage is applied.

1 7. (Amended) The plasma display panel of Claim 6,

2 wherein the constant of the dielectric layer is 6 or more and less than [11] 9.

1 9. (Amended) The plasma display panel of Claim 3, [4, 5, 6, or 7,]
2 wherein the distance between the pairs of display electrodes is in a range of 20 μm to
3 90 μm inclusive, where the display electrodes are facing the discharge spaces.

1 10. (Amended) [A] An alternating current type surface-discharge plasma display
2 panel comprising a first plate and a second plate disposed parallel to each other, with a plurality
3 of ribs interposed between the two plates so as to form a plurality of spaces,

the first plate having, on an inner surface, plural pairs of display electrodes covered by a dielectric layer,

the second plate having, on an inner surface, a plurality of address electrodes,

the first plate and the second plate being disposed in such a manner that the display electrodes cross over the address electrodes,

each of the plurality of ribs being interposed between adjacent address electrodes, and

each of the plurality of spaces being provided with a phosphor layer and filled with

discharge gas, so as to form discharge spaces,

the plasma display panel performing displaying the following steps: 1) accumulating

electric charge in the dielectric layer by performing writing-discharge between the display

electrodes and the address electrodes, 2) applying a predetermined sustaining voltage between the pairs of display electrodes, 3) glow-discharging in selected discharge spaces in which the electric charge has been accumulated in the dielectric layer, and 4) converting ultraviolet light resulting from the glow-discharge into visible light by means of the phosphor layer.

18 wherein a panel structure is set such that an equivalent electric field strength of
19 37V/cm • Pa or more is generated in the selected discharge spaces, when the predetermined
20 sustaining voltage is applied.

1 11. (Amended) [A] An alternating current type surface-discharge plasma display
2 panel comprising a first plate and a second plate disposed parallel to each other, with a plurality
3 of ribs interposed between the two plates so as to form a plurality of spaces,
4 the first plate having, on an inner surface, plural pairs of display electrodes covered by a
5 dielectric layer,

6 the second plate having, on an inner surface, a plurality of address electrodes,
7 the first plate and the second plate being disposed in such a manner that the display
8 electrodes cross over the address electrodes,

9 each of the plurality of ribs being interposed between adjacent address electrodes, and
10 each of the plurality of spaces being provided with a phosphor layer and filled with
11 discharge gas, so as to form discharge spaces,

12 the plasma display panel performing displaying by the following steps: 1) accumulating
13 electric charge in the dielectric layer by performing writing-discharge between the display
14 electrodes and the address electrodes, 2) applying a predetermined sustaining voltage between
15 the pairs of display electrodes, 3) glow-discharging in selected discharge spaces in which the
16 electric charge has been accumulated in the dielectric layer, and 4) converting ultraviolet light
17 resulting from the glow-discharge into visible light by means of the phosphor layer,

18 wherein an amount of xenon contained in the discharge gas and filling pressure of the
19 discharge gas, a gap between the display electrodes, and the thickness and a permittivity of the

20 dielectric layer are set so that an equivalent electric field strength of 37V/cm • Pa or more is
21 generated in the selected discharge spaces, when the predetermined sustaining voltage is
22 applied.

1 15. (Amended) The plasma display panel of Claim 6,

2 wherein the constant of the dielectric layer is 6 or more and less than [11] 9.

1 17. (Amended) The plasma display panel of Claim 11, [12, 13, 14, 15, 16,]

2 wherein the distance between the pair of display electrodes is in a range of 20 µm to

3 90 µm inclusive, where the display electrodes are facing the discharge spaces.

4 26. (Amended) A display unit comprising the alternating current type surface-
5 discharge plasma display panel of Claim 1, [2, 3, 10, or 11,] and a driving circuit for applying
6 voltage to every electrode included in the plasma display panel.

7 Claims 27 to 50 have been added.